

What is claimed is:

1. A method for printing print data using a printer including a plurality of staggered print heads, the method comprising steps of:

- (A) identifying one of the plurality of staggered print heads as a reference print head;
- (B) identifying a plurality of time offsets corresponding to the plurality of staggered print heads, the plurality of time offsets representing printing times of the plurality of staggered print heads relative to the printing time of the reference print head;
- (C) for each of a plurality of printing times, performing steps of:
  - (1) for each of the plurality of staggered print heads, determining whether to print a subset of the print data based on the time offset corresponding to the print head;
  - (2) providing the subset of the print data to the print head if it is determined that the print head should print the subset of the print data; and
  - (3) otherwise, providing a predetermined data set to the print head.

2. The method of claim 1, wherein the step (C) (3) comprises a step of providing null data to the print head.

3. The method of claim 1, wherein the step (C) (3) comprises a step of providing preheat data to the print head.

4. A device for printing print data using a printer including a plurality of staggered print heads, the device comprising:

first identification means for identifying one of the plurality of staggered print heads as a reference print head;

second identification means identifying a plurality of time offsets corresponding to the plurality of staggered print heads, the plurality of time offsets representing printing times of the plurality of staggered print heads relative to the printing time of the reference print head;

determination means for determining, for each of the plurality of staggered print heads, whether to print a subset of the print data based on the time offset corresponding to the print head;

first provision means for providing the subset of the print data to the print head if it is determined that the print head should print the subset of the print data;

second provision means for providing a predetermined data set to the print head; and

iteration means for activating the determination means, the first provision means, and the second provision means for each of a plurality of printing times.

5. The device of claim 4, wherein the second provision means comprises means for providing null data to the print head.

6. The device of claim 4, wherein the second provision means comprises means for providing preheat data to the print head.

7. A method for printing print data using a printer including a first print head and a second print head which is staggered with respect to the first print head, the method comprising steps of:

- (A) identifying a time offset indicating a printing time of the second print head relative to a printing time of the first print head;
- (B) in a first time interval, performing steps of:
  - (1) providing a first portion of the print data to the first print head;
  - (2) providing null data to the second print head;
- (C) in a second time interval which occurs later than the first time interval by an

amount of time equal to the time offset,  
performing steps of:

- (1) providing a second portion of the print data to the first print head; and
- (2) providing the first portion of the print data to the second print head.

8. The method of claim 7, further comprising a step of:

- (D) in a third time interval which occurs later than the first time interval by an amount of time equal to less than the time offset, performing steps of:
  - (1) providing a third portion of the print data to the first print head; and
  - (2) providing null data to the second print head.

9. A device for printing print data using a printer including a first print head and a second print head which is staggered with respect to the first print head, the device comprising:

means for identifying a time offset indicating a printing time of the second print head relative to a printing time of the first print head;

means for providing, in a first time interval, a first portion of the print data to the first print head;

means for providing, in the first time interval, null data to the second print head;

means for providing, in a second time interval which occurs later than the first time interval by an amount of time equal to the time offset, a second portion of the print data to the first print head; and

means for providing, in the second time interval, the first portion of the print data to the second print head.

10. The device of claim 9, further comprising:

means for providing, in a third time interval which occurs later than the first time interval by an amount of time equal to less than the time offset, a third portion of the print data to the first print head; and

means for providing, in the third time interval, null data to the second print head.

11. A method for printing print data, the method comprising steps of:

- (A) performing a first image processing step on a first portion of the print data to produce first processed print data;
- (B) storing the first processed print data in a first buffer;
- (C) transmitting the first processed print data to a second buffer;
- (D) performing a second image processing step on a second portion of the print data to produce second processed print data;
- (E) storing the second processed print data in a third buffer;

- (F) transmitting the second processed print data to a fourth buffer; and
- (G) transmitting the second processed print data from the second buffer to a print engine while at least one of steps (D), (E), and (F) is being performed.

12. The method of claim 11, wherein the first image processing step comprises a step of striping the first portion of the print data.

13. The method of claim 11, wherein the first image processing step comprises a step of staggering the first portion of the print data.

14. The method of claim 11, wherein the first image processing step comprises a step of stitching the first portion of the print data.

15. A device for printing print data, the device comprising:

first image processing means for performing a first image processing step on a first portion of the print data to produce first processed print data;

first storage means for storing the first processed print data in a first buffer;

first transmission means for transmitting the first processed print data to a second buffer;

second image processing means for performing a second image processing step on a second portion of the print data to produce second processed print data;

second storage means for storing the second processed print data in a third buffer;

second transmission means for transmitting the second processed print data to a fourth buffer; and

third transmission means for transmitting the second processed print data from the second buffer to a print engine while at least one of the second image processing means, the second storage means, and the second transmission means is active.

16. The device of claim 15, wherein the first image processing means comprises means for striping the first portion of the print data.

17. The device of claim 15, wherein the first image processing means comprises means for staggering the first portion of the print data.

18. The device of claim 15, wherein the first image processing means comprises means for stitching the first portion of the print data.